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SOUTHERN FOREST EXPERIMENT STATION

FOREST SERVICE, U.S. DEPT. OF AGRICULTURE

EIGHT YEARS OF MANAGEMENT ON THE ESCAMBIA FARM FORESTRY FORTY

Will it pay to build up run-down farm woodlands to grow continuous crops of longleaf pine timber? How long will it take and what will it cost? What are the returns?

In 1947, 40 acres on the Escambia Experimental Forest near Brewton, Alabama, were put under management to answer these questions. The Forty was typical--some good trees but many poor trees, lots of scrub oak, and only one-third of the area stocked to pine. The timber stand was cruised, pine growth was estimated, and annual cuts were started. Each year's cut is less than the growth. The poorer trees are being removed first, leaving the better ones to grow and improve the stand. Scrub oaks have been controlled and bare areas prescribe-burned to help establish longleaf pine seedlings.

So far, over \$3,100 worth of timber products have been delivered to mar-

ket. Yet the Forty has more and better trees now than when cutting began. Trees are spaced to use the soil more efficiently, and many of the bare areas are now growing thrifty pine seedlings. Each annual cut has shown a net profit above all costs. Thus while the forest is being rebuilt, it is paying its way.

Timber Stand Development

Growing stock is increasing. Per-acre volumes, not including the volumes cut, have advanced from 3,525 to 3,750 board feet International 1/4-inch rule; from 1,825 to 1,925 board feet Doyle rule; and from 11.8 to 12.0 cords.

Table 1.--Five-year pine growth on the Forty

	Cords ^{1/}	Board feet ^{2/}	
		Int. rule	Doyle rule
Stand in 1947	470	141,000	73,000
Cut, 1947-52	110	45,000	27,000
Stand in 1952	480	150,000	77,000

^{1/} All pines over 3-1/2 inches.

^{2/} All pines over 9-1/2 inches.

Growth per acre has been 270 board feet International, 155 board feet Doyle, and 0.6 cord annually.

Harvests and Returns

Each year, after the trees have been selected for cutting, they can be harvested by the farmer or sold on the stump. In 1955 the

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harvest was 47 poles, 1,321 board feet of saw-logs, and 6 cords of pulpwood. As stumpage, these products were worth \$160. Delivered to market, they are worth \$333.

Table 2. -- Eight-year harvest from the Forty

Products	At market	On stump
	<u>Dollars</u>	<u>Dollars</u>
197 poles	483	233
23 M bd. ft. saw-logs (Doyle)	1,124	570
62 cords pulpwood	748	245
21 barrels gum	489	122
24 cords fuelwood	193	0
380 fence posts	<u>64</u>	<u>21</u>
Total	3,101	1,191

If the farmer does his own harvesting, costs and returns for the eight years are:

Market value \$3,101

Management costs - - \$ 42

Logging costs - - - - 781

Total \$823

Net return - - - - - \$2,278

Management costs include all cash outlays for growing the tree crop, such as taxes, marking paint, and chemicals and tools used in scrub hardwood control. Logging costs include the use of logging equipment and supplies, and contract hauling. Net return is for labor and

stumpage. Logging required 1,673 man-hours of farmer labor.

If the crop is sold on the stump, costs and returns for the eight years are:

<u>Stumpage value</u>	-	-	-	-	-	\$1,191
Management costs	-	-	-	-	-	\$ 42
<u>Net return</u>	-	-	-	-	-	\$1,149

Annual net return per acre is \$3.59.
Management required 92 man-hours.

Greater returns are expected in the future. The Forty is still understocked. It can probably support three times its present volume of 3,750 board feet per acre. When every acre is in full production, annual returns will be much more than they are today.

The Forty, therefore, shows that a farmer can profitably manage longleaf pine as an annual crop. Of course, he need not cut trees each year--it may be better to cut every fifth year or so. Similarly, there is a choice between marketing trees as stumpage or cutting and delivering products. At current high stumpage prices, many will find it best to sell marked timber. Others, especially if they are equipped for the job, will prefer to do their own harvesting.

Tom Croker
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